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OM protein - protein search, using sw model

Run on: August 31, 2002, 14:50:29 : Search time 15.94 seconds
(without alignments)
678.829 Million cell updates/sec

Title: US-09-555-093-2
2410
Sequence: 1 MYVDKNASGLRMKVQDKMLY.....YAMNLQOLKNMAEHQAKAA 443

Scoring table:
BIOSUM62
Gapop 10.0, Gapext 0.5

Searched: 231628 seqs, 24425594 residues

Total number of hits satisfying chosen parameters: 231628

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

Issued_Patents_AA:*
1: /cgn2_6/ptodata/2/1aa/5A.COMB.pep:*
2: /cgn2_6/ptodata/2/1aa/5B.COMB.pep:*
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4: /cgn2_6/ptodata/2/1aa/6B.COMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	557	23.1	457	2	US-08-834-655-2
2	557	23.1	457	3	US-08-834-033A-2
3	557	23.1	457	4	US-09-363-574-2
4	555	23.0	457	2	US-08-833-610-4
5	555	23.0	457	3	US-08-834-033A-14
6	501	20.8	355	2	US-08-834-655-5
7	501	20.8	355	3	US-08-834-033A-6
8	501	20.8	355	4	US-09-363-574-5
9	456.5	18.9	446	2	US-08-833-610-5
10	456.5	18.9	446	3	US-08-834-033A-15
11	448.5	18.6	448	1	US-08-366-779-5
12	448.5	18.6	448	1	US-08-789-936-5
13	448.5	18.6	448	1	US-08-934-254-5
14	412	17.1	87	2	US-08-834-655-10
15	412	17.1	87	3	US-08-834-033A-11
16	412	17.1	87	4	US-09-363-574-10
17	400	16.6	452	4	US-08-934-254-27
18	259.5	10.8	252	2	US-08-834-655-7
19	259.5	10.8	252	3	US-08-834-033A-8
20	259.5	10.8	252	4	US-09-363-574-7
21	217	9.0	365	2	US-08-833-610-7
22	217	9.0	365	3	US-08-834-033A-17
23	215.5	8.9	359	1	US-08-307-382-2
24	215.5	8.9	359	1	US-08-366-779-2
25	215.5	8.9	359	1	US-08-478-727-2
26	215.5	8.9	359	1	US-08-473-508-2
27	215.5	8.9	359	1	US-08-789-936-2

28	215.5	8.9	359	2	US-08-833-610-6	Sequence 6, Appl1
29	215.5	8.9	359	3	US-08-834-033A-16	Sequence 16, Appl1
30	215.5	8.9	359	4	US-08-934-254-2	Sequence 2, Appl1
31	186	7.7	446	2	US-08-833-610-2	Sequence 2, Appl1
32	186	7.7	446	3	US-08-834-033A-5	Sequence 5, Appl1
33	174.5	7.2	443	4	US-09-161-994A-3	Sequence 3, Appl1
34	166	6.9	143	2	US-08-834-655-11	Sequence 12, Appl1
35	166	6.9	143	3	US-08-834-033A-12	Sequence 11, Appl1
36	166	6.9	143	4	US-09-363-574-11	Sequence 72, Appl1
37	164.5	6.8	418	5	PCR-US94-01321-72	Sequence 9, Appl1
38	161	6.7	131	2	US-08-834-655-9	Sequence 10, Appl1
39	161	6.7	131	3	US-08-834-033A-10	Sequence 9, Appl1
40	161	6.7	131	4	US-09-363-574-9	Sequence 8, Appl1
41	149	6.2	125	2	US-08-834-655-8	Sequence 9, Appl1
42	149	6.2	125	3	US-08-834-033A-9	Sequence 8, Appl1
43	149	6.2	125	4	US-09-363-574-8	Sequence 8, Appl1
44	148	6.1	424	4	US-09-161-994A-4	Sequence 4, Appl1
45	141.5	5.9	384	4	US-09-354-231B-18	Sequence 18, Appl1

ALIGNMENTS

RESULT 1
US-08-834-655-2
; Sequence 2, Application US/08834655
; Patent No. 5968809
; GENERAL INFORMATION:
; APPLICANT: KNOTZON, DEBORAH
; APPLICANT: MURKERJI, PRADIP
; APPLICANT: HUANG, YUNG-SHENG
; APPLICANT: THURMOND, JENNIFER
; APPLICANT: CHAUDHARY, SUNITA
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS
; TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: RAE-VENTER LAW GROUP, P.C.
; STREET: 260 SHERIDAN AVENUE, P.O. BOX 60039
; CITY: PALO ALTO
; STATE: CA
; COUNTRY: USA
; ZIP: 94306
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/834,655
; FILING DATE: 11-APR-1997
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: RAE-VENTER, BARBARA
; REGISTRATION NUMBER: 32,750
; REFERENCE/DOCKET NUMBER: CGNE.124.00US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (650) 328-4400
; TELEFAX: (650) 328-4477
; TELEX: N/A
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 457 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-834-655-2

Query Match 23.1%; Score 557; DB 2; Length 457;
Best Local Similarity 32.1%; Pred. No. 7.6e-47;
Matches 143; Conservative 64; Mismatches 187; Indels 52; Gaps 11;

[illegible]

RESULT 2
US-08-834-033A-2
Sequence 2, Application US/08834033A
Patent No. 6075183
GENERAL INFORMATION:
APPLICANT: KNOTZON, DEBORAH
APPLICANT: MUKERJI, PRADIP
APPLICANT: HUANG, YUNG-SHENG
APPLICANT: THORNDON, JENNIFER
APPLICANT: CHAUDHARY, SONITA
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS
-? TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS
-? NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
ADDRESSEE: LIMBACH AND LIMBACH, L.L.P.
STREET: 2001 FERRY BUILDING
CITY: SAN FRANCISCO
STATE: CA
COUNTRY: USA
ZIP: 94111
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/834,033A
FILING DATE: 11-APR-1997
CLASSIFICATION: 800
ATTORNEY/AGENT INFORMATION:
NAME: WARD, MICHAEL R.
REGISTRATION NUMBER: 38,651
REFERENCE/DOCKET NUMBER: CGAB-300, USA
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 433-4150
TELEFAX: (415) 433-8716
TELEX: N/A
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:

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;      LENGTH: 457 amino acids
;      TYPE: amino acid
;      STRANDEDNESS: not relevant
;      TOPOLOGY: linear
;      MOLECULE TYPE: peptide
US-08-834-033A-2

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Query Match	23.1%;	Score 557;	DB 3;	Length 457;
Best Local Similarity	32.1%;	Pred. No. 7.6e-47;		
Matches 143;	Conservative 64;	Mismatches 187;	Indels 52;	Gaps 11

Qy	12	IKYDGGKULYSEELTYAKHGGVAVIOQYNSDATHPIAHFHEGSSQAYKODLLKKHGEHD	71
Dd	34	MIDNKK-VYDREFEVDHGGSVILLTHGKQCTDVFOTFHEPAAW-----	77
Qy	72	ELEKOLEKRLOKVDINVSAYDVSAOERKKVSEFEKLRKLDHDDGLMANKETYLEFKAI	13
Dd	78	ETLANFVVGDIEDSDRDICKNDFFA-AEYKRLRTLFOSL-----GYDSSKAYUYFKVS	12
Qy	132	STLSIAFAFYLDYOLCW-----YTSACLLALAMOOQFMTHERCHQPPKKNRPLNT	18
Dd	130	FNLCIMGLSTVIV-AAKMGOTSTLANVLSAALLGLFWOOCMLAHDFLHROVFODRWGL	18
Qy	185	ISLFEFNGFLGSESRDMMKKKNTHTHAATNVLDHDDGLDALPL-----FAPIPG-D	23
Dd	189	FGAFELGVCVGCFSSSMKKKNTHTHAANVNHAGEDRPDIDTHPLTWSEHALKMSDVRDE	24
Qy	234	LCATKASEKAILIKIYPOHLYFTYMLDPLRFSTGQSVQWYKREKOMEKYKQY--NAF	29
Dd	249	LTRMWSRF-----WVLNLTWTFYPIELSFARLSMGLSIOLEFVLPNGQAIKPSGARVPISL	30
Qy	292	WEOATYIGHAWYVYOLFELTPWPR-AAYEIIISOMGGGLIAHYTFNHNSVDKPRANS	35
Dd	303	VEQSLSLAMHTWYLAIMEFLFIDYRPNMLVYFLVSOAQCMLLAIVSLNHNCPYISKEE	36
Qy	351	RIUNFPAALQILTRNMPESPIDMLWGLNYOIEHHLLFTPRPCULNACVKYKEMCKE	41
Dd	363	AYWDEFTKQIITGRDVFHGLFANNFTGGLNYOIEHHLLFSPMBRNHFSKIOPAVETLCK	42
Qy	411	NNLPYLVDVDFDGYAANNLOOLKNME	436
Dd	423	YNVRIHTGMIESTALVFSKRLNWSK	448

RESULT 3
 US-09-363-574-2
 : Sequence 2, Application US/09363574
 : Patent No. 6136574
 : GENERAL INFORMATION:
 : APPLICANT: KNUZZON, DEBORAH
 : APPLICANT: MURKERT, PRADIP
 : APPLICANT: HUANG, YUNG-SHENG
 : APPLICANT: THURMOND, JENNIFER
 : APPLICANT: CHAUDHARY, SUNITA
 : TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS
 : OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS
 : NUMBER OF SEQUENCES: 18
 : CORRESPONDENCE ADDRESS:
 : ADDRESSEE: LIMBACH AND LIMBACH L.L.P.
 : STREET: 2001 FERRY BUILDING
 : CITY: SAN FRANCISCO
 : STATE: CA
 : COUNTRY: USA
 : ZIP: 94111
 : COMPUTER READABLE FORM:
 : MEDIUM TYPE: Floppy disk
 : COMPUTER: IBM PC compatible
 : OPERATING SYSTEM: PC-DOS/MS-DOS
 : SOFTWARE: PatentIn Release #1.0, Version #1.30
 : CURRENT APPLICATION DATA:
 : APPLICATION NUMBER: US/09/363,574
 : FILING DATE:

ADDRESSEE: RAE-VENTER LAW GROUP, P.C.
STREET: 260 SHERIDAN AVE, P.O. BOX 60039

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; Patent No. 6075183
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; GENERAL INFORMATION:

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Db      237 VCGNLALVFSLNHGMGVISKEEAVDMEFQKILITGRDVHPGLFANNFTGSLNQLIHH 296
Oy      387 HLEFLMPCNINLACVKYIKEMCKENNNLPYLDDYTDGAMNLQOLKNMAE 436
Db      297 HLFESMPRHNSKSIOPAVELTCKKKYNVRHTTGTEAEVFSRLNEVSK 346

RESULT       7
US-08-834-033A-6
; Sequence 6, Application US/08834033A
; Patent No. 6075183
; GENERAL INFORMATION:
APPLICANT: KNUTZON, DEBORAH
APPLICANT: MUKERJI, PRADIP
APPLICANT: HUANG, YUNG-SHENG
APPLICANT: THURMOND, JENNIFER
APPLICANT: CHAUDHARY, SUNITA
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS
TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS
NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
ADDRESSEE: LIMBACH AND LIMBACH, L.L.P.
STREET: 2001 FERRY BUILDING
CITY: SAN FRANCISCO
STATE: CA
COUNTRY: USA
ZIP: 94111
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/834,033A
FILING DATE: 11-APR-1997
CLASSIFICATION: 800
ATTORNEY/AGENT INFORMATION:
NAME: WARD, MICHAEL R.
REGISTRATION NUMBER: 38,651
REFERENCE/DOCKET NUMBER: CGAB-300.USA
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 433-4150
TELEFAX: (415) 433-8716
TELEX: N/A
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 355 amino acids
TYPE: amino acid
STRANDEDNESS: not relevant
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-834-033A-6

Query Match          20.8%; Score 501; DB 3; Length 355;
Best Local Similarity 34.3%; Pred. No. 1.8e-41;
Matches 120; Conservative 48; Mismatches 154; Indels 28; Gaps 7

Oy      108 KLRQKHIDHGMLKNRETFELFKAIISTLSIMAFYLOYLGW-----YITSACLIALAW 160
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Oy      161 QOFMWLTREFEHOOPTKRNPINDTISLEFGNELQGFSDRMWKDKNTNHAAATNVIDHDG 220
Db      63 QQCGWLAMDPLFHQYQDFRGFDLFGARFLGCVGCGGFFSSSWMKDKINTIHAAARNVGEDPD 122
Oy      221 IDLAFL-----FAFDG-DICKTKASFKAALKIVPYOHLYFTAMLPMRLPFSWTG 269
Db      123 IDTLPLTWSEHALEMFSVDPEDELTTRMSRF-----MYLNQTWFYPILSFARLSMCL 176
Oy      270 QSVOVMVFRENOMEKYVQR--NAFWEQATIYGHMAWVFYOFLFLTPWPLR-VAYFIISQM 326

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[illegible]

QY 270 OSVQWKEKEMEXKYOR--NAFWEQATVGHMAWVYOLLPPTWLR-VAYFIISOM 326
DB 177 OSILFVLPNGOAHKPSGARVPISLVEQLSLAMHMTWLTATWFLTKDPVNNLYEFLVSQA 236
QY 327 GGGILLIAHYVTFNNNSDKPANSRIILNFRALDILTRNNTPSPFDLWLGINTOIEN 386
DB 237 VCGLLIAVSLVSNHNGMVPVSKKEBAYMDFTKQIITGRDHPGLFANWFTGGLNTYDIEH 296
QY 387 HLEPTMPCNLNACVYKWKEMCKENNLPLYVDVDFGAYAMNLOOLKNMAE 436
DB 297 HLEPSPMRHNFSKIQPAVEILCKRYNVRHTHTGIEGTAEVFSKLNVEYSK 346

RESULT 9
US-08-833-610-5
; Sequence 5, Application US/08833610
; Patent No. 5972664
; GENERAL INFORMATION:
; APPLICANT: KNOTZON, DEBORAH
; APPLICANT: MURKERTJ, PRADIP
; APPLICANT: HUANG, YUNG-SHENG
; APPLICANT: THURMOND, JENNIFER
; APPLICANT: CHAUDHARY, SUNITA
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS
; TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: RAE-VENTER LAW GROUP, P.C.
; STREET: 260 SHERIDAN AVE, P.O. BOX 60039
; CITY: PALO ALTO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94306
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/833,610
; FILING DATE: 11-Apr-1997
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: RAE-VENTER, BARBARA
; REGISTRATION NUMBER: 32,750
; REFERENCE/DOCKET NUMBER: CGNE.123.00US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (650)328-4400
; TELEFAX: (650)328-4477
; TELEX: N/A
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 446 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-833-610-5

Query Match 18.9%; Score 456.5; DB 2; Length 446;
Best Local Similarity 28.0%; Pred. No. 6.5e-37;
Matches 127; Conservative 70; Mismatches 189; Indels 67; Gaps 14;
QY 10 LRMKVKCKWLYLSBELVKKHGGAV-TEQYRNSDATHIFHAFHGGSSQAVKQDLDLKKHG 68
DB 23 LMTSIOCK-AYDVSOWKDHGGSSFLKSLAGQEVTDFAVAFHASTW-----69
QY 69 EHDEFLEKLEKRLDKVDIVNSADVSAOEKKVNES--FEKLRQKLHDDGLMKANETVF 126
DB 70 -----KNLDKRFETGYLKDYSVSEVSKYVRKLYVEFESKMGLYD-----KKGHT 112

QY 127 LEKAISSLIAFAFYLOYIG-----WYISACLIALAMQGFMLTHEFCHQOPTKN 178
DB 113 MF---ATLCFIAMLFAMSVSYGLFCGEVLVLFEGCLMGFLMIOGWIIGHDAGHYAVVSD 169
QY 179 RPLNDTISLFGNFILOGFSRDMKDKHNTHTHAATNNVIDHODDIDLAP-----LFAFIP 231
DB 170 SRLKFMGIFANCLSGISIGMMNHNHAIACNSLEYDDLOAYIPPLVSSKFFPSLT 229
QY 232 GDLCRKYASFEKALIKTVPOHLYFTAMLPMILRSWTSQSVQWVKEKEMEXKYORNAF 291
DB 230 SHEYKRLTFPSLSRFYSVOHMTFFIPMCARLMTVQSLIMLTNRNYSRAQE-----285
QY 292 WEQATVGHMAW-VYOLF--LPTWPLRAYFIISONGGGLIAHYVTNNHNSVDKYP 348
DB 286 ----LLGLVFSIYWDLVSLCPNMGERTIMFYIASLSVTGMQVQ--FSLNHFSSSYVG 339
QY 349 NSRIILNFPALLOILTNRNMPSPFDLWLGINTYDIEHLEPTMPCNLNACVYKWKEMC 408
DB 340 KPK-GNNWFEKQTDGTLIDISCPWMDWFHGLQFQIEHHLFPKMPKCNLKRISFYIELC 398
QY 409 KENNLPLYVDYDFGAYAMNLOOLKNMAEHIOAK 441
DB 399 KKHNLPLYNVASFASKANEMTLRLTANFTA--LQAR 429

RESULT 10
US-08-834-033A-15
; Sequence 15, Application US/08834033A
; Patent No. 6075183
; GENERAL INFORMATION:
; APPLICANT: KNOTZON, DEBORAH
; APPLICANT: MURKERTJ, PRADIP
; APPLICANT: HUANG, YUNG-SHENG
; APPLICANT: THURMOND, JENNIFER
; APPLICANT: CHAUDHARY, SUNITA
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS
; TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: LIMBACH AND LIMBACH, L.L.P.
; STREET: 2001 FERRY BUILDING
; CITY: SAN FRANCISCO
; STATE: CA
; COUNTRY: USA
; ZIP: 94111
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: WORDPERFECT 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/834,033A
; FILING DATE: 11-Apr-1997
; CLASSIFICATION: 800
; ATTORNEY/AGENT INFORMATION:
; NAME: WARD, MICHAEL R.
; REGISTRATION NUMBER: 38,651
; REFERENCE/DOCKET NUMBER: CGAB-300.USA
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 433-4150
; TELEFAX: (415) 433-8716
; TELEX: N/A
; INFORMATION FOR SEQ ID NO: 15:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 446 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-834-033A-15

Query Match 18.9%; Score 456.5; DB 3; Length 446;

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; INFORMATION FOR SEQ ID NO: 5:
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; SEQUENCE CHARACTERISTICS:
;     LENGTH: 448 amino acids
;     TYPE: amino acid
;     TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-366-779-5

Query Match          18.6%; Score 448.5; DB 1; Length 448;
Best Local Similarity 27.9%; Pred. No. 4e-36;
Matches 127; Conservative 71; Mismatches 186; Indels 71; Gaps 15;

QY      10 LRMKVDGKMVLYSEELYKKHPCGA--IEQRNSDATHI FNAFHGGSSOATKYQLDLKKKG 68
DB      23 LMWISIQCK-AVDYSWMVKDHFGSGFPLSLAGLEVTDAFAVFHPASTW----- 69
QY      69 EHDFELKOLEKRDKXDINDANSAYDVAAQ---EKKMVSFEFLROKLHDGDLMKANET 124
DB      70 -----KNIDKEFFPTGYLLKDYSVSEVSKDYRKLVFEFSKM--GLVD-----KKG 110
QY      125 YLFKAISTLSIMAFAYLOYLG-----WYTTSACILALAQOEGMLNFEFCDOOPT 176
DB      111 HIME---ATLCFTAMLFAMSYYGLPCEGVYLHLFSCGCMQFMLIQSGMIGHDGHYVV 167
QY      177 KNRPLNDTISLFGNFLOGFSRDWWKDKHNTHAATNVIDHDGIDLAP-----LEAF 229
DB      168 SDRSLNFKMGCFANCLSGISIGMKWNHNAHIACNSLEYDPLOYIPFLVASSKFPGS 227
QY      230 IPGDLCKYKSAFEAKILLKYPRCHLYFTAMLPMLEFSMTGSQGVWVRKENMEKKYVQRN 289
DB      228 LTSHFYKRLRFDLSRFPSFYOHWTPEYPLICARLNMYVOSLTMLLTKRNVSRAOE-- 285
QY      290 AFWEQATIVGHMAW-VYVOFL--LPMPLRVAVFITSQMGGLIAHVTFENINSYDKY 346
DB      286 -----LLGCLVPSTIRPYLLVSCLPWRGERIMVIVIASLTGTQQVQ-FSLNFPSSSY 337
QY      347 PANSRLINPAALOILTTRNMTSPSPFIOWMLGSLNYOIEHHLFPTMRCLNLACVKYKE 406
DB      338 VGKPK-GNNMFEEKQTDTLDISCPMMDWIFHGSGQFOIEHHLFPKMRCNLKISPVIYE 396
QY      407 WCKENNLPLYLVDFEDGYAMNLOOLKMAHEHQAK 441
DB      397 LCKKHNLPLYNVASFASKANEMTLRLRTA--LQAR 429

RESULT 12
US-08-789-936-5
; Sequence 5, Application US/08789936
; Patent No. 5789220
; GENERAL INFORMATION:
; APPLICANT: Thomas, Terry L.
; APPLICANT: Reddy, Avutu S.
; APPLICANT: Nuccio, Michael
; APPLICANT: Freyhsinec, Georges L.
; APPLICANT: Nuberger, Andrew N.
; TITLE OF INVENTION: PRODUCTION OF GAMMA LINOLENIC ACID BY A
; TITLE OF INVENTION: DELTA 6-DESATURASE
; NUMBER OF SEQUENCES: 25
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Scully, Scott, Murphy & Presser
; STREET: 400 Garden City Plaza
; CITY: Garden City
; STATE: New York
; COUNTRY: United States
; ZIP: 11530
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/789,936
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1      CILING DATE: 28-JAN-1997
2
3      CLASSIFICATION: 435
4
5      PRIOR APPLICATION DATA:
6
7      APPLICATION NUMBER: 08/366,779
8
9      FILING DATE: 30-DEC-1994
10
11     ATTORNEY/AGENT INFORMATION:
12
13     NAME: Presser, Leopold
14
15     REGISTRATION NUMBER: 19,827
16
17     REFERENCE/DOCKET NUMBER: 83832XXW
18
19     TELECOMMUNICATION INFORMATION:
20
21     TELEPHONE: (516) 742-4343
22
23     TELEFAX: (516) 742-4366
24
25     TELEX: 230 901 SANS UR
26
27     INFORMATION FOR SEQ ID NO: 5:
28
29     SEQUENCE CHARACTERISTICS:
30
31     LENGTH: 448 amino acids
32
33     TYPE: amino acid
34
35     TOPOLOGY: linear
36
37     MOLECULE TYPE:
38
39     US-08-789-936-5

```

Query Match	18.6%;	Score 448.5;	DB 1,	length 448;
Best Local Similarity	27.9%;	Pred. No. 4e-36;		
Matches 127;	Conservative	71;	Mismatches 186;	Indels 71;
				Gaps 15

QY	10	LRRKUYKWLTYLSEELYKKNHGGAA--IEYRNSDTHTEFNHFGSSQAVKQDLDKKHG	65
Db	23	LWISIQK-AVDYSDWKPHPGSGFPLASLSAGOEYTDLAFVAFHPSW-----	65
QY	69	EHDFLEKOLEKRLDKVDINVASAYDVAQ---EKKWSEFEKRLKDLDDGLMANET	123
Db	70	-----KNLDFEFTGYILKDYKSYSEVSKDYRKLVFEFSKM--GLYD-----KK	111
QY	125	YFLFAKISTLSIAAFYLYOYLG-----WYTSACLLAAQOFGWLTHERCQOP	173
Db	111	HMF-----ATLCFAMLFAMSYYGVLFCEGVLYHLFSGGLMFLMIOGWTGHDAGHTMY	160
QY	177	KNRPLNDTISLFEFGNLFQFSRDWKKDXKHNTHAATNYIDHGGDIDLAP-----LFAF	223
Db	168	SDSRLLKFMGIFANCLSGISIGMKMKNNHNAHNLACNLEYPDPLQYIPLVYSSKFFGS	223
QY	230	IPDDCKYKASFEKALIKLVPRONHLYFAMLMPLRFMTGSGSYQWVFKENOMEYUQNR	283
Db	228	LTSHEYKRLTFEPUSLRFVSYOHNTEFPYICMAALNMYVYLSLMLTLTKRNVSTRAOE--	283
QY	290	AFMEDQATIVGNHMA-VFYOLF--LPYPLRAAYEITISOMGGGLIAHVYTPHNSVDXY	340
Db	286	-----LLGCLVFSTWYLLVSLCPENNGERMFVYASLSTYTGQYOQV-FSLNHFFSSYY	333
QY	347	PANSRLINNEPALQILITTRNMTPSFIDMLWGLNLYOIEHLHLPYMRCLYNACVKYKE	400
Db	338	VGRPK-GNMWFEKQTFGLDIDICPMMWDFHGGSGOFOIEHLHLPKMRCLIRKISPYIE	399
QY	407	WCKENNLPLYVDYDFDGYAMNLQOLKNAHNIQAK	441
Db	397	LCKKHNLPTVYASFESKANEMTLRLTLRNA--LQAR	429

RESULT 13
US-08-934-254-5
Sequence 5, Application US/08934254
Patent No. 635861
GENERAL INFORMATION:
APPLICANT: Thomas, Terry L.
TITLE OF INVENTION: PRODUCTION OF GAMMA LINOLENIC ACID BY A
TITLE OF INVENTION: DELTA 6-DESATURASE
NUMBER OF SEQUENCES: 27
CORRESPONDENCE ADDRESS:
ADDRESSEE: Scully, Scott, Murphy & Presser
STREET: 400 Garden City Plaza
CITY: Garden City
STATE: New York

```

1  COUNTRY: United States
2  ZIP: 11530
3  COMPUTER READABLE FORM:
4  MEDIUM TYPE: Floppy disk
5  COMPUTER: IBM PC compatible
6  OPERATING SYSTEM: PC-DOS/MS-DOS
7  SOFTWARE: Patentin Release #1.0, Version #1.25
8  CURRENT APPLICATION DATA:
9  APPLICATION NUMBER: US/08/934,254
10 FILING DATE:
11 CLASSIFICATION: 435
12 ATTORNEY/AGENT INFORMATION:
13 NAME: Presser, Leopold
14 REGISTRATION NUMBER: 19,827
15 REFERENCE/DOCKET NUMBER: 83832YXWVU
16 TELECOMMUNICATION INFORMATION:
17 TELEPHONE: (516) 742-4343
18 TELEFAX: (516) 742-4366
19 TELEX: 230 901 SANS UR
20 INFORMATION FOR SEQ ID NO: 5:
21 SEQUENCE CHARACTERISTICS:
22 LENGTH: 448 amino acids
23 TYPE: amino acid
24 TOPOLOGY: linear
25 MOLECULE TYPE: Protein
26 ;
27 ;
28 US-08-934-254-5

```

Query Match	18.6%	Score 448.5	DB 4	Length 448
Best Local Similarity	27.9%	Pred. No. 4e-36		
Matches 127, Conservative	71	Mismatches 186	Indels 71	Gaps 15

```

QY 10 LRMYVDGWTYLSEIYKMHGGGAV--HQYRNSPATNHPAHFHGGSGOAKODLLKKG 68
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 23 LMIStQGK-AVDYDWMKXDRHGGSFPLKSLAGQEVTAFAFHPASTV----- 69
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 69 EHDEFLEKOLEKRLLDKVDINYSAYDVSAO---EKKVESFEKRLKDLDDGLMKANET 124
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 70 -----KNDKFEFTGYLLKDYSAVSEYSKDYRLKLVFEFSKM--GLYD----- KKG 110
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 125 YELFKATISTLSMAFAFLQYLG-----WYTSACLALAMQGRGMYLHERCHOPT 176
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 111 HIME---ATLQFTIMLRMSYGYLVFEGVYLHFLSGCLGFMLTQSGMIGHDGHMNV 167
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 177 KNRLPNDTISLFEQNFLOGFSRDWYKDKNHTNHAATVNIHDGDDIDLP-----LFAF 229
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 168 SDSRLNKMGFIANCLSGISIGWKKNNHNAHIACTNSLEYDPLQYIPIELVYSSKFFGS 227
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 230 IPRDLCKKASFEKALIKYVQYQYLTAMYPHREMGWQSGOYVWYKEMOMEKYQYQY 269
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 228 LTHSFYERKRLFDLSRFEVYSQHMTEYRPLICARLMMYQSLIMLLTKRNVSYRAOE-- 285
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 290 AFWEQATVGVHMAV-VFQYFL--LHPWPLVAFVFIISOMGGGLIAHVYFNHNSVDKY 346
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 286 -----LLGGLVYSIWYPLVLSCLPRMNGERIMVIAVLSYTGQOYQ-FSLNHFFSSVY 337
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 347 PANSRLNNEFAALQILTRNMTPSPEITDMLGSLNLYOIEHNLPEPTMRCMLNACVYKKE 406
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 338 VGKPK-GNNWEKQTDGTLDISCPYMDMDWEGSGQFQIEHNLPRKMRCLRKISIPYIE 396
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 407 WCKENNLPLYLVDDYFDGAYANMLQOLKMAHEIQAK 441
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 397 LCKRHNLPRYNVASSKANEMTLRLRLRNTA--LQAR 429
   |:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

```

RESULT 14
US-08-834-655-10
Sequence 10, Application US/088346555
Patent No. 5968809
GENERAL INFORMATION:
APPLICANT: KUTSON, DEBORAH
MORRERJUT, PRADIP
APPLICANT: HUANG, YUNG-SHENG

APPLICANT: THURMOND, JENNIFER
 APPLICANT: CHAUDHARY, SUNITA
 TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS
 TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS
 NUMBER OF SEQUENCES: 18
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: RAE-VENTNER LAW GROUP, P.C.
 STREET: 260 SHERIDAN AVENUE, P.O. BOX 60039
 CITY: PALO ALTO
 STATE: CA
 COUNTRY: USA
 ZIP: 94306
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/834,655
 FILING DATE: 11-APR-1997
 CLASSIFICATION: 435
 ATTORNEY/AGENT INFORMATION:
 NAME: RAE-VENTNER, BARBARA
 REGISTRATION NUMBER: 32,750
 REFERENCE/DOCKET NUMBER: CGNE.124.00US
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (650) 328-4400
 TELEFAX: (650) 328-4477
 TELEX: N/A
 INFORMATION FOR SEQ. ID NO: 10:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 87 amino acids
 TYPE: amino acid
 STRANDEDNESS: not relevant
 TOPOLOGY: linear
 MOLECULE TYPE: peptide
 US-08-834-655-10

```

Query Match          17.1%; Score 412; DB 2; Length 87;
Best Local Similarity 90.0%; Pred. No. 1.5e-33;
Matches 72; Conservative 3; Mismatches 5; Indels 0; Gaps 0.

OY 364 TRNMTPSPFIDMLMGGLNYOIEHHLEPTMPRCNLNACVKKYKEMCKENNLPLYVDYDFDG 423
      |||||
Db 8 TRNMTPSPFIDMLMGGLNYOIEHHLEPTMPRCNLNCRKKYKEMCKAENNLPLYVDYDFVG 67
      |||||

OY 424 YAMNLOQLKMAAEHIQAKAA 443
      |:|||||:|||||
Db 68 YNLNLOQLKMAAEIYQAKAA 87

RESULT 15
US-08-834-033A-11
: Sequence 11, Application US/08834033A
: Patent No. 6075183
: GENERAL INFORMATION:
: APPLICANT: KNUTZON, DEBORAH
: APPLICANT: MUKERJI, PRADIP
: APPLICANT: HUANG, YUNG-SHENG
: APPLICANT: THURMOND, JENNIFER
: APPLICANT: CHAUDHARY, SUNITA
: TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS
: TITLE OF INVENTION: OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS IN PLANTS
: NUMBER OF SEQUENCES: 26
: CORRESPONDENCE ADDRESSES:
: ADDRESSEE: LIMBACH AND LIMBACH, L.L.P.
: STREET: 2001 FERRY BUILDING
: CITY: SAN FRANCISCO
: STATE: CA
: COUNTRY: USA
: ZIP: 94111
: COMPUTER READABLE FORM:
:

```

```

1 MEDIUM TYPE: Floppy disk
2 COMPUTER: IBM PC compatible
3 OPERATING SYSTEM: PC-DOS/MS-DOS
4 SOFTWARE: WORDPERFECT 5.1
5
6 CURRENT APPLICATION DATA:
7 APPLICATION NUMBER: US/08/834,033A
8 FILING DATE: 11-APR-1997
9 CLASSIFICATION: 800
10 ATTORNEY/AGENT INFORMATION:
11 NAME: WARD, MICHAEL R.
12 REGISTRATION NUMBER: 38,651
13 REFERENCE/DOCKET NUMBER: CGAB-300,05A
14 TELECOMMUNICATION INFORMATION:
15 TELEPHONE: (415) 433-4150
16 TELEFAX: (415) 433-8716
17
18 TEXEL: N/A
19
20 INFORMATION FOR SEQ ID NO: 11:
21 SEQUENCE CHARACTERISTICS:
22 LENGTH: 87 amino acids
23 TYPE: amino acid
24 STRANDEDNESS: not relevant
25 TOPOLOGY: linear
26 MOLECULE TYPE: peptide
27
28 US-08-834-033A-11

```

Query Match	17.1%;	Score 412;	DB 3;	length 87;
Best Local Similarity	90.0%;	Pred. 0.15e-33;		
Matches	72;	Conservative	3;	Mismatches 5; Indels 0; Gaps 0;
OY	364	TRNNWSPFDLWGLMGLANTQIEHHNLPMPRCRNINACQKYVKECKRNNNPLYVDYFQGS	423	
Db	8	TRNNWSPFDLWGLMGLANTQIEHHNLPMPRCRNINACQKYVKECKRNNNPLYVDYFQGS	67	
OY	424	YAMNLOOLKMAEHIQAKAA	443	
		:		
Db	68	YNLNLOOLKMAELVQAKAA	87	

Search completed: August 31, 2002, 14:58:23
Job time: 474 sec

